

**REMARKS**

Pursuant to the present amendment, claims 1-10 have been canceled, claim 11 has been amended, and new claims 25-56 have been added. Thus, claims 11-56 are pending in the present application. No new matter has been introduced by way of the present amendment. Reconsideration of the present application is respectfully requested in view of the amendments and arguments set forth herein.

As an initial matter, claims 1-10 have been canceled as they are directed to a non-elected invention that was the subject of a previous restriction requirement issued by the Office. Applicants specifically reserve the right to pursue such claims in a later filed application should they so desire.

In the Office Action, claims 11-24 were rejected under 35 U.S.C. § 112 for allegedly failing to comply with the enablement requirement. It is believed that independent claim 11 has been amended in a manner believed to overcome the Examiner's Section 112 rejection. Withdrawal of the rejection is respectfully requested.

In the Office Action, claims 11-13, 21 and 23 were rejected under 35 U.S.C. § 102 as allegedly being anticipated by Applicants' admitted prior art citing Figure 1 and pages 4-7 of the present application. Applicants respectfully traverse the Examiner's rejection.

As an initial matter, it is noted that no prior art based rejection was issued with respect to claims 14-20, 22 and 24. Presumably, the Examiner did not find any basis for rejecting those claims other than the aforementioned Section 112 rejection.

As the Examiner well knows, an anticipating reference by definition must disclose every limitation of the rejected claim in the same relationship to one another as set forth in the claim.

*In re Bond*, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). To the extent the Examiner relies on principles of inherency in making the anticipation rejections in the Office Action, inherency requires that the asserted proposition necessarily flow from the disclosure. *In re Oelrich*, 212 U.S.P.Q. 323, 326 (C.C.P.A. 1981); *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1463-64 (Bd. Pat. App. & Int. 1990); *Ex parte Skinner*, 2 U.S.P.Q.2d 1788, 1789 (Bd. Pat. App. & Int. 1987); *In re King*, 231 U.S.P.Q. 136, 138 (Fed. Cir. 1986). It is not enough that a reference could have, should have, or would have been used as the claimed invention. “The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” *Oelrich*, at 326, quoting *Hansgirk v. Kemmer*, 40 U.S.P.Q. 665, 667 (C.C.P.A. 1939); *In re Rijckaert*, 28 U.S.P.Q.2d 1955, 1957 (Fed. Cir. 1993), quoting *Oelrich*, at 326; see also *Skinner*, at 1789. “Inherency ... may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” *Skinner*, at 1789, citing *Oelrich*. Where anticipation is found through inherency, the Office’s burden of establishing *prima facie* anticipation includes the burden of providing “...some evidence or scientific reasoning to establish the reasonableness of the examiner’s belief that the functional limitation is an inherent characteristic of the prior art.” *Skinner* at 1789.

Moreover, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable

expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); M.P.E.P. § 2142. Moreover, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988); M.P.E.P. § 2143.03.

With respect to alleged obviousness, there must be something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561 (Fed. Cir. 1986). In fact, the absence of a suggestion to combine is dispositive in an obviousness determination. *Gambro Lundia AB v. Baxter Healthcare Corp.*, 110 F.3d 1573 (Fed. Cir. 1997). The mere fact that the prior art can be combined or modified does not make the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990); M.P.E.P. § 2143.01. The consistent criterion for determining obviousness is whether the prior art would have suggested to one of ordinary skill in the art that the process should be carried out and would have a reasonable likelihood of success, viewed in the light of the prior art. Both the suggestion and the expectation of success must be founded in the prior art, not in the Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); *In re O'Farrell*, 853 F.2d 894 (Fed. Cir. 1988); M.P.E.P. § 2142.

Applying these legal standards, it is respectfully submitted that independent claim 11, as amended, is allowable over the art of record. More specifically, pursuant to the present amendment, independent claim 11 has been amended to recite that the P-doped region and the

N-doped region formed in the P-doped semiconductor layer are self-aligned with respect to the dielectric mask region. As thus amended, it is respectfully submitted that independent claim 11 is allowable over the information provided in the background section of the application. More specifically, to the extent the Examiner's rejection is understood by the undersigned, Figure 1 does not disclose an embodiment wherein P-doped regions and N-doped regions are formed in a P-doped semiconductor layer wherein the P-doped regions and N-doped regions are self-aligned with respect to a dielectric mask region. Accordingly, it is respectfully submitted that amended independent claim 11 is allowable over the art of record.

New independent claim 25 has been added to further define Applicants' invention. More specifically, new independent claim 25 includes the steps involved in forming the N-doped region. Even more specifically, new independent claim 25 recites the steps of forming a first resist mask above the P-doped semiconductor layer and at least a portion of the dielectric mask region to thereby define a first exposed portion of the P-doped semiconductor layer and performing at least one ion implant process to implant an N-type dopant material into the first exposed portion of the P-doped semiconductor layer. It is respectfully submitted that new independent claim 25, and all claims depending therefrom, are in condition for immediate allowance.

New independent claims 34 and 48 have been added to further define Applicants' invention. More specifically, new independent claims 34 and 48 are mirror images of independent claims 11 and 25 except that the polarity of the various dopant materials has been reversed. For the reasons set forth above, it is believed that these claims are likewise in condition for immediate allowance.